

JOHNSON  
Cornell University

## Looking Ahead into Brazil



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# Executive Summary

Brazil
1. Where is Brazil today? <i>Macro level review of current economic landscape</i>

## Analysis of the three pillars that will fuel the growth of the Brazilian economy

Education
1. Who needs education? <i>Analysis of the population breakdown</i>
2. What are the challenges to education? <i>Revelation of the disparity between public and private school systems</i>
3. How should Brazil provide for the future? <i>Defining building blocks to advance education</i>

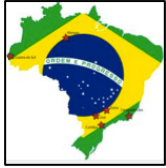
Technology
1. Who are the users of technology in Brazil? <i>Know the audience</i>
2. What are the areas that will drive growth and innovation in the sector? <i>Opportunities to tailor industry specific products</i>

Role of Investments
1. Who to focus future investments on? <i>Shift of the social class</i>
2. How is the social class shifting the investments landscape? <i>Discovering business sectors to innovate</i>
3. What are the problems that Brazil faces with attracting investments? <i>Disclosing the real problems</i>

**Recommendations on how to transform Brazil**  
*Defining a long term strategic plan to increase investments and prevent stagnant growth*



# Agenda



Macro level perspective of the Brazilian economy



Future of education



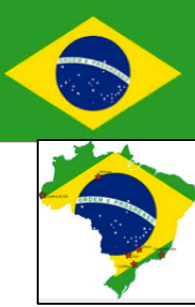
Path of technology



Role of investments



Recommendations



## Brazil represents a plethora of opportunities...

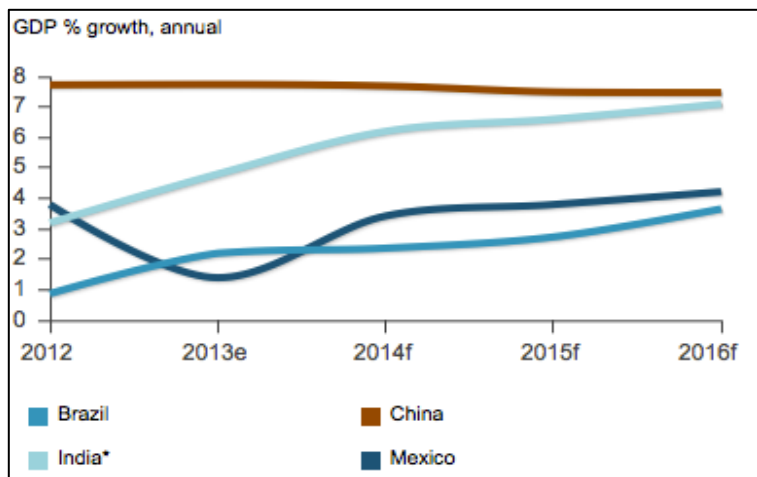
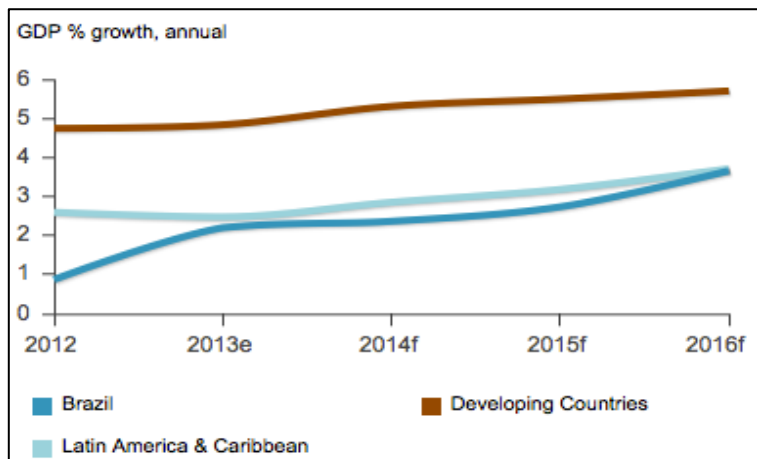


- In 2012, a total of 6.4 million foreign tourists visited Brazil, increase of 19.3 percent year to year, expected to increase to 11.25 percent in 2013, and further 11 percent increase during 2014
- Abundance of natural resources and beauty, such as Iguacu waterfalls, Pantanal and the world-famous Amazon rainforest
- Stunning Atlantic ocean and beaches that span 7,491 km (4,655 miles) of Brazil's coastline
- Seventh largest economy by nominal GDP and seventh largest by purchasing parity (2012)
- Slated to host the 2014 World Cup and the 2016 Olympics
- Brazil remains a romanticized location for international tourists

But, is the Brazilian economy able to manage the growth within the Technology, Education, and Investments sectors?



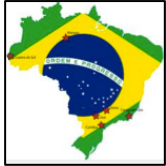
## But... Brazil's GDP growth continue to remain sluggish



- Brazil ranks the *lowest in GDP* percent annual growth
- Actual GDP growth was at .9 percent in 2012
- 2013 GDP growth is expected to *trend upwards* to 2.2 percent and by 2016 to be 3.7 percent, but still below the global growth rate of 3.9 percent
- Developing countries, including India, China and Mexico have *outpaced Brazil* in GDP growth
- Brazil's *underinvestment* in infrastructure and *high inflation* contributes to low GDP growth
- Current *rate of inflation is 6.28 percent, historical high*, continued trend will lead to high interest rates, and further segregation of the social classes



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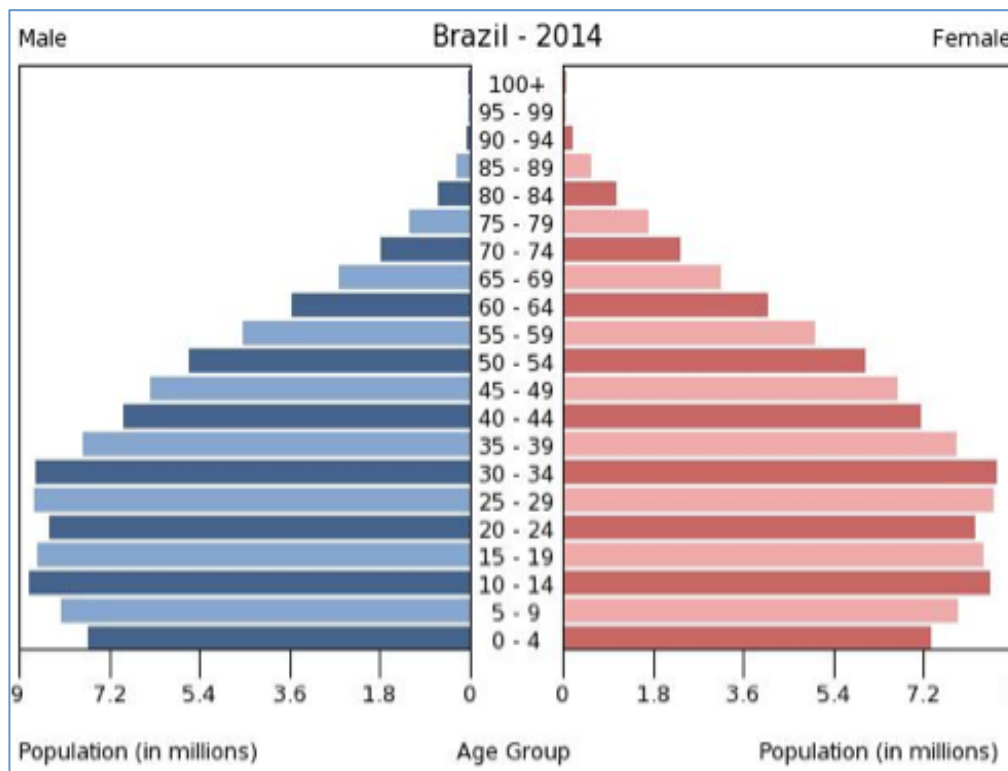


# Stable population growth shows promising future in the next generation

**Current population 198.7 million**

**Growth rate is 8 (ranked 137 to the world)**

**Birth rate: 14.72 births/1,000 population**



**Age structure (percent):**  
**0-14 years: 23.8**  
**15-24: 16.5**  
**25-54: 43.7**  
**55-64: 7.6**  
**65 years and over: 7.3**

**Median age: 30.7**  
**Male: 29.9**  
**Female: 31.5**

The second growing age segment requires Brazil to take a microscopic look into their education system and develop infrastructure for the long term



# The daunting difference between private and public schools system poses a wide gap in the level of education and quality of teaching

## *Challenges*

- Public school teachers earn an average \$2,000BRL per month, while private school teachers make \$3,000-5,000BRL
- State managed guidelines for public education funding
- Private school system relies heavily on successful passing of entrance exams, such as the Prova Brasil, Enem, and Fuvest
- Inconsistent level of education from the north and south of Brazil

## *Assumptions*

- **Salary dispersion** between public and private school teachers encourages qualified teachers to enter the private school sector
- **Inability to track** benefits and metric reporting on the system
- **Lack of classroom innovation** makes primary focus of private school recruitment on getting into a reputable university and hinders on teacher's ability to innovate in the classroom
- **Regional differences** hinders in the quality of teaching and the ability to attract qualified teachers

Ministry of Education invests 5.5 percent of Brazil's GDP into the education system, yet funding still lacks in proper classroom infrastructure across the country





## Building blocks for the future of the education system

1

### Technology advances

- The Ministry of Education is committed to supplying tablets devices, more than 460,000, to public state schools to enhance learning techniques

2

### President's top priority

- The education sector is ranked 10<sup>th</sup> largest sector in the economy, and generates \$75 billion USD per year

3

### Focus on Science

- Government's Scientific Mobility Program "Science without Borders" will provide 101,000 scholarships to undergraduate/graduate students to study abroad, promote research and international cooperation in science and technology

4

### Invest in proven applications

- Khan Academy, non profit website that provides free, world-class educational programs are being translated to Portuguese for use in classrooms

5

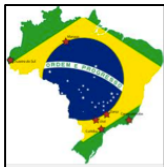
### World learning

- Classroom curriculum that teaches world history and requirement to learn English, Spanish, and Portuguese as a second language

There are promising investments on the horizon that will support the growth of the population



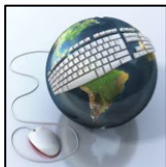
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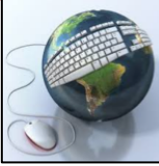
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# Growth in the Brazilian economy will be driven by opportunities in the technology sector



## *Current Landscape*

## *Opportunities*

### Increasing Demand

- Spend more than 27 hours per month on the internet, surpassing the global average of 24.7 hours
- 23.3 percent use their phones to access the internet

- Need for infrastructure and innovation in the wireless sector
- Increase distribution of mobile phones and tablets

### Social Media Savvy

- 36 percent of online time is spent on social media
- Brazil accounts for 65 million Facebook users, second to the U.S
- Second largest market for YouTube

- Opportunities for entrants in the development of applications, online and social media technology

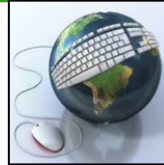
### Organic Growth

- Lacks successful cases of technology entrepreneurs
- FORBES World's Billionaires list showcased only 46 Brazilians (out of 1,645)

- Launch startup supported programs
- Leverage second mover advantage by modeling on existing, successful technology platforms



# Rising purchasing power paves the path to further technological growth and innovation



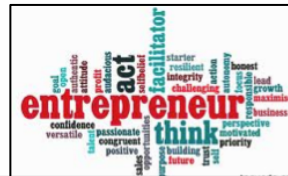
## E-commerce is booming

Revenues are \$12 billion annually, and will grow 25 percent over 2012

100 million Brazilians are internet users, **61% have made online purchases**, and 64 are between the ages 15-34

Latin American sporting goods e-tailer company, Kanui.com.br experienced **web sales increased over 9,000** percent

**Mercado Livre** remains the top retail e-commerce, reaching more than 14 million users

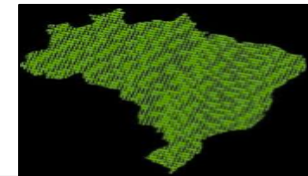


## Bullish start up scene

**Startup Brasil**, a government program launched to support technology-oriented startups has attracted foreign talent and will award 100 tech start ups per year with investments totaling \$20 million USD

New tax incentives for tech companies are underway and will **accelerate the innovation** process

**Brazil is home to 2,835 startups.** Sao Paulo, with 605, Minas Gerais with 181 and Rio de Janeiro with 125 companies



## Access and Infrastructure

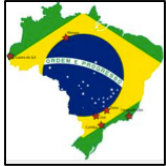
68 percent of household internet connections utilizes **broadband technology** (DSP and cable)

Brazilian regulator Anatel made implementations to **allow municipalities to deliver direct broadband service** without the need to contract a telco or internet service provider

**Opportunity for telecommunications companies**, such as Oi and Telefónica to expand internet and wireless speeds services



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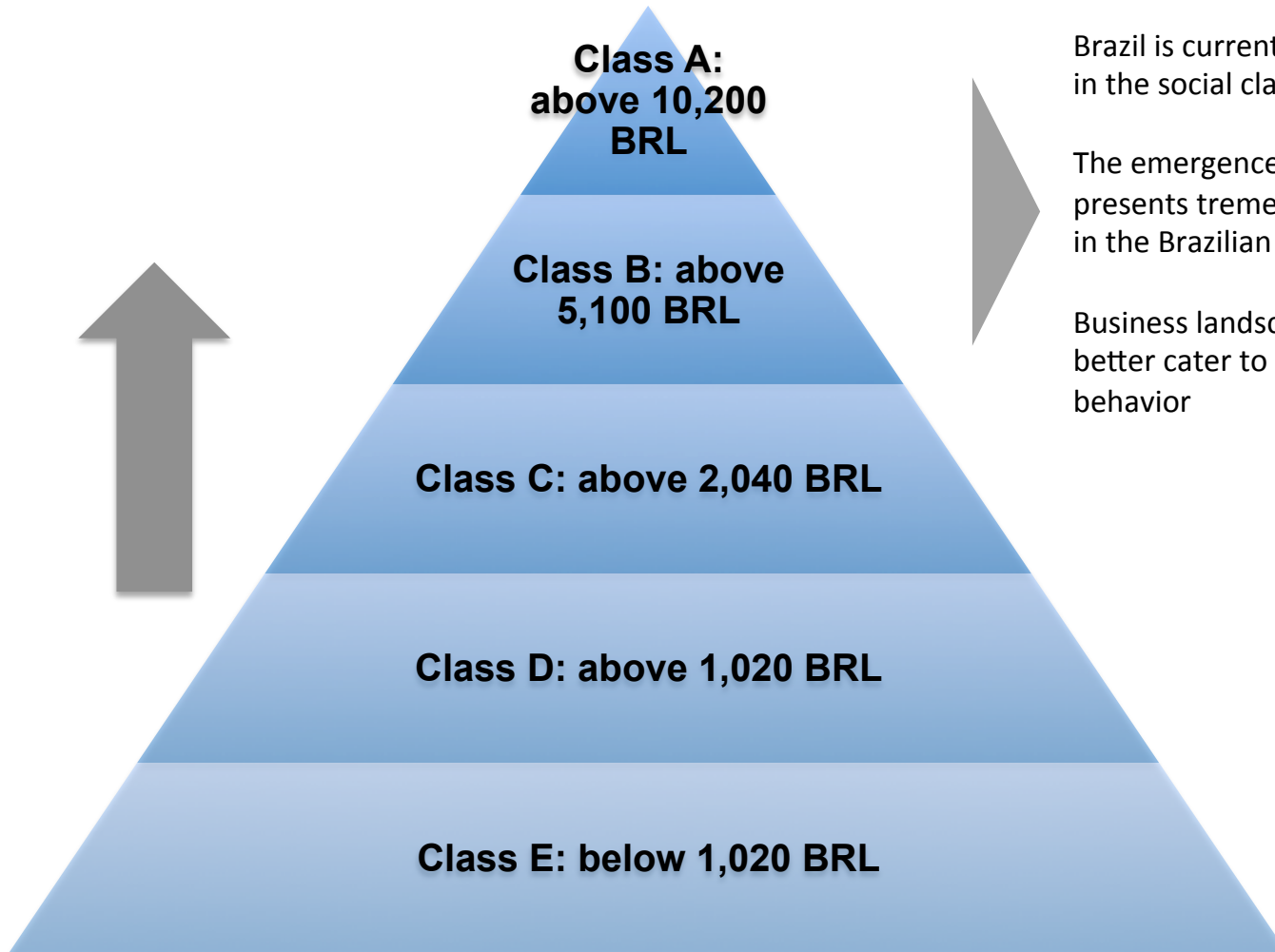
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## Shift in social class leads to an increase in domestic consumption



Brazil is currently undergoing a shift in the social class

The emergence of the D and C class presents tremendous buying power in the Brazilian economy

Business landscape is changing to better cater to the shifting consumer behavior



# A low, 5.2 percent, unemployment rate is supporting the emergence of Brazilians to the middle class

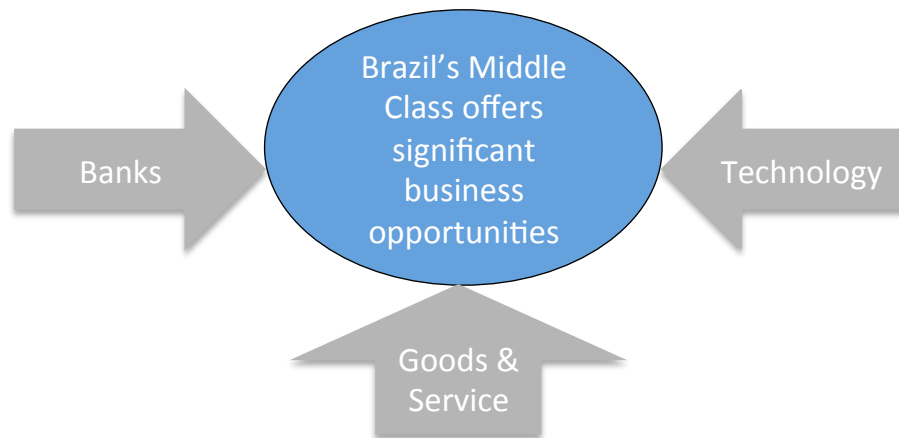
	Class A	Class B	Class C	Class D	Class E
Level of Education	Higher education, fluent in several languages	Higher education, fluent in several languages	Finished high school, or technical degree	Not finished high school	Incomplete elementary school and illiterate
Types of Occupation	<i>Bankers, investors, business owners</i>	<i>Directors, managers, politicians, judges, professors, doctors</i>	<i>Teachers, mechanics, nurses, electricians</i>	<i>Housemaids, bartenders, bricklayers, small stores sellers, low-paid drivers</i>	<i>Cleaners, street sweepers, unemployed people</i>

- 35 million people joined the middle class between 2003 to 2009, and 20 million more are expected to be included by 2014
- Social class change is leading to a rise in domestic demand
- *Business sectors such as cosmetics, technology, e-commerce have seen a surge in consumption*



## A rapidly changing consumer base will transform into the foundation for long term investment that will drive growth, robust entrepreneurship and innovation

- Opportunity for banks to develop a robust retail and consumer investment suite of products
- Develop portfolio strategies for how to better invest and save
- Adopt international wealth management platforms to cater to increasing social class financial needs
- Increase incentive for savings



- 40 percent of household income is expected to go towards goods and services
- Brazil represents the third largest cosmetic market, sales in the segment hit \$43 million, and is expected to growth 142 percent in the next five years
- Decrease tariffs and VAT costs for imports, currently at an average of 22.7 percent (up to 35 percent) to attract business importing prospects
- In 2012, Brazil represented Fiat's largest market and Unilever's second largest

- Increase services on prepaid mobile phone plans
- Develop infrastructure for mobile internet services in public locations
- Opportunity to import technology advances from developed countries, from mobile hand devices to personal computers
- Increase international partnerships and joint ventures to speed integration



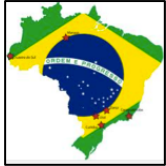


## Hidden problems that hinder investment growth, investor confidence, and economic stability





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## *Recommendations:* How a transformation is crucial to the viability and the continued growth of Brazil...



1

***Invest in foreign workers to boost productivity***, improve economic growth and integration. Low unemployment rates, at 4.6 percent in November 2013, are triggering the need for skilled, qualified workers. Recent changes in the government will reduce the bureaucracy involved in obtaining a work visa for Brazil and allowing workers to change jobs without having to request a new visa.

2

***Develop internal policies*** within the government system to decrease the difficulty of doing business and increase confidence in the market. Develop credibility to gain traction in foreign investments.

3

***Manage the media*** and world brand image of Brazil. Mitigate the level of crime within the cities and increase protection to the people.

4

***Develop infrastructure*** to support the rising middle class. Enhance technology platforms and sale of services and consumer goods.

5

***Decrease government debt*** (currently at 58.8 percent of GDP), develop programs to initiate investment and savings plans.

6

***Increase foreign investments by privatizing infrastructure developments***. In March 2013, the Finance Minister launched a Brazil Infrastructure Roadshow to attract foreign investments for road, rail and airport projects, but there is a need to expand investments to cover more sectors such as, technology and education.



Amanda Wu MBA '14 was born in Hong Kong and raised in New York City. She obtained her undergraduate degree from Hofstra University. Immediately following graduation, she began her career at Lehman Brothers. She was also one of the few to transition to Barclays Wealth post bankruptcy and held an Assistant Vice President role. She gained expertise in alternative investment products, particularly Hedge Funds and Private Equity and helped oversee a \$1.5 billion alternative investments platform.

During her first year studies at Johnson, she was inspired with the emerging markets, particularly Brazil. During her summer, she interned with nonprofit Endeavor Global to work with one of the most dynamic technology companies in all of Brazil, Acesso Digital. During her assignment, she developed five innovative solutions that will propel Acesso's revenues to over 350 percent. Her impact even transcended to the media, where she was interviewed by Global news, Brazil's news channel on how Brazilian companies are seeking students like Amanda to foster innovation and organizational changes.

At Johnson, Amanda is an Emerging Markets Institute fellow, consultant with BR Consulting firm, career work group leader and a member of the Consortium. Amanda's native tongue is Cantonese and can also speak Spanish, French and Mandarin. In her spare time, she is an aspiring chef, an opera enthusiast and a language buff, she also learned Portuguese during her internship in Brazil.

Amanda will be graduating from Johnson in May, 2014 and plans to take a role in the Financial Services Advisory practice of Ernst & Young in São Paulo, Brazil.